ELSEVIER

Volume 537 issues 1–2, 29 April 2005

ANALYTICA CHIMICA ACTA

www.elsevier.com/locate/aca

CONTENTS

(Full texts are incorporated in CJELSEVIER, a file in the Chemical Journals Online database available on STN International; Abstracted, indexed in: Aluminium Abstracts; Anal. Abstr.; Biol. Abstr.; BIOSIS; Chem. Abstr.; Curr. Contents Phys. Chem. Earth Sci.; Engineered Materials Abstracts; Excerpta Medica; Index Med.; Life Sci.; Mass Spectrum. Bull.; Material Business Alerts; Metals Abstracts; Sci. Citation Index)

Sunscreen analysis

Sunscreen analysis. A critical survey on UV filters determination
A. Salvador and A. Chisvert (Valencia, Spain) 1

An environmentally friendly ("green") reversed-phase liquid chromatography method for UV filters determination in cosmetics
A. Salvador and A. Chisvert (Valencia, Spain) 15

Capillary electrophoresis

Determination of disopyramide in human urine by capillary electrophoresis with electrochemiluminescence detection of tris(2,2′-bipyridyl) ruthenium (II)
L. Fang, X.-b. Yin, X. Sun and E. Wang (Changchun, China) 25

Liquid chromatography

High-performance liquid chromatographic assay of parabens in wash-off cosmetic products and foods using chemiluminescence detection
Q. Zhang, M. Lian, L. Liu and H. Cui (Anhui, PR China) 31

Comparison of retention of native cyclodextrins and its permethylated derivatives on porous graphite carbon and silica C_{18} stationary phases
A. Kwaterczak and A. Bielejewska (Warsaw, Poland) 41

Determination of free furfuryl alcohol in foundry resins by chromatographic techniques
M.T. Oliva-Teles, C. Delerue-Matos and M.C.M. Alvim-Ferraz (Porto, Portugal) 47

Modelling retention in liquid chromatography of polyphenolic acids. Prediction of solvent composition and pH of the mobile phase
N. Sanli (Isparta, Turkey), G. Fonrodona, J. Barbosa (Barcelona, Spain), G.A. Özkan (Isparta, Turkey) and J.L. Beltran (Barcelona, Spain) .. 53

On-line cleanup of blanks by electrochemically modulated liquid chromatography for inductively coupled plasma-mass spectrometry
T. Hasan, D. Gazda, M.D. Porter and R.S. Houk (Ames, IA, USA) 63

Immunochromatography

Development of an immunochromatographic method to determine β-lactoglobulin at trace levels
A. Puerta, J.C. Diez-Masa and M. de Frutos (Madrid, Spain) 69

Gas chromatography

Immersed solvent microextraction and gas chromatography–mass spectrometric detection of *s*-triazine herbicides in aquatic media
H. Bagheri and F. Khalilian (Tehran, Iran) 81

Use of second-order calibration for residue screening of some triazines in the presence of coeluting interferences by gas chromatography–selected ion mass spectrometry
M. Jalali-Heravi and M. Vosough (Tehran, Iran) 89

Prediction of retention time of a variety of volatile organic compounds based on the heuristic method and support vector machine
F. Luan, C. Xue, R. Zhang, C. Zhao, M. Liu, Z. Hu (Lanzhou, China) and B. Fan (Paris, France) 101

Nucleic acids

Post-PCR detection of nucleic acids using metalloporphyrin labels and time-resolved fluorescence
D.J. O'Shea, P.J. O'Sullivan (Cork, Ireland), G.V. Ponomarev (Moscow, Russia) and D.B. Papkovsky (Cork, Ireland) 111

Electrochemiluminescence polymerase chain reaction detection of genetically modified organisms
J. Liu, D. Xing, X. Shen and D. Zhu (Guangzhou, PR China) 119

Ion-flux assays

Interferences in Fluo-3 based ion-flux assays for ligand-gated-ion channels
T.R. Besanger, H. Bhanabhai and J.D. Brennan (Hamilton, Canada) 125

Sensors

Microsphere optical ion sensors based on doped silica gel templates
C. Xu, K. Wygladacz, Y. Qin (Auburn, AL, USA), R. Retter, M. Bell (Brea, CA, USA) and E. Bakker (Auburn, AL, USA) 135

doi:10.1016/S0003-2670(05)00576-3

Overoxidized polypyrrole film directed DNA immobilization for construction of electrochemical micro-biosensors and simultaneous determination of serotonin and dopamine
X. Jiang and X. Lin (Hefei, PR China) ... 145
Tissue implanted glucose needle electrodes: early sensor stabilisation and achievement of tissue-blood correlation during the run in period
S. Ahmed, C. Dack (Salford, UK), G. Farace (London, UK), G. Rigby (Salford, UK) and P. Vadgama (London, UK) ... 153
Label-free and reversible immunosensor based upon an ac impedance interrogation protocol
S. Grant (Leeds, UK), F. Davis, K.A. Law, A.C. Barton, S.D. Collyer, S.P.J. Higson (Silsoe, UK) and T.D. Gibson (Leeds, UK and West Yorkshire, UK) ... 163
Flow injection analysis of carbofuran in foods using air stable lipid film based acetylcholinesterase biosensor
D.P. Nikolelis, M.G. Simantiraki, C.G. Siontorou (Athens, Greece) and K. Toth (Budapest, Hungary) ... 169
Amperometric glucose biosensor based on sol–gel-derived metal oxide/Nafion composite films
H.N. Choi, M.A. Kim and W.-Y. Lee (Seoul, Korea) ... 179

Flow injection analysis

Determination of some estrogens by flow injection analysis with acidic potassium permanganate–formaldehyde chemiluminescence detection
S. Liao, X. Wu and Z. Xie (Fujian, PR China) ... 189
Development of flow injection spectrophotometric methods for the determination of free available chlorine and total available chlorine: comparative study
B. Saad, W.T. Wai, Md.S. Jab, W.S. Wan Ngah, M.I. Saleh (Penang, Malaysia) and J.M. Slater (Gordon Square, London) ... 197
Sample introduction in multi-syringe flow injection systems: comparison between time-based and volume-based strategies
M.A. Segundo, H.M. Oliveira, J.L.F.C. Lima, M.I.G.S. Almeida and A.O.S.S. Rangel (Porto, Portugal) ... 207

Molecularly imprinted polymers

Comparison of trimethoprim molecularly imprinted polymers in bulk and in sphere as the sorbent for solid-phase extraction and extraction of trimethoprim from human urine and pharmaceutical tablet and their determination by high-performance liquid chromatography
S.-G. Hu, L. Li and X.-W. He (Tianjin, PR China) ... 215

Qualitative analysis

Development and validation strategies for qualitative spot tests: application to nitrite control in waters
M.R. Plata, N. Pérez-Cejuela, J. Rodríguez and Á. Ríos (Ciudad Real, Spain) ... 223

Extraction and preconcentration

Fast assay of angiotensin 1 from whole blood by cation-exchange restricted-access solid-phase microextraction
F.M. Musteata, M. Walles and J. Pawliszyn (Waterloo, Canada) ... 231
Single-step coacervate-mediated preconcentration of metals and metal-chelates in supramolecular vesicular surfactant assemblies and determination by flame atomic absorption spectrometry
G.Z. Tsogas, D.L. Giokas, E.K. Paleologos, A.G. Vlessidis and N.P. Evmiridis (Ioannina, Greece) ... 239
Optimization of a multi-elemental preconcentration procedure for the monitoring survey of dissolved metal species in natural waters
D.L. Giokas, E.K. Paleologos and M.I. Karayannis (Ioannina, Greece) ... 249
On-fibre silylation following solid-phase microextraction for the determination of acidic herbicides in water samples by gas chromatography
I. Rodríguez, E. Rubí, R. González, J.B. Quintana and R. Cela (Santiago de Compostela, Spain) ... 259
Determination of Cr(VI) in potable water samples after selective preconcentration on oxalate form of Dowex-1 and electro thermal atomic absorption spectrometric determination
A.C. Sahayam, G. Venkateswarlu and S.C. Chaurasia (Hyderabad, India) ... 267

Inductively coupled plasma atomic emission

On-line emulsion formation and multi-element analysis of edible oils by inductively coupled plasma atomic emission spectrometry
A.N. Anthemidis, V. Arvanitidis and J.A. Stratis (Thessaloniki, Greece) ... 271

Metallic nanoparticles

A phase transfer identification of core–shell structures in Au–Ru nanoparticles
J. Yang, J.Y. Lee and H.-P. Too (Singapore, Singapore) ... 279

Electroanalytical chemistry

Ex situ preparation of bismuth film microelectrode for use in electrochemical stripping microanalysis
E.A. Hutton, S.B. Hočevar and B. Ogorevc (Ljubljana, Slovenia) ... 285
Determination of free chlorine based on anodic voltammetry using platinum, gold, and glassy carbon electrodes
F. Kodera, M. Umeda and A. Yamada (Niigata, Japan) ... 293
Identifying the $n = 2$ reaction mechanism of FAD through voltammetric simulations
M. Cable and E.T. Smith (Jupiter, FL, USA) ... 299
Electrochemical studies of ganciclovir at glassy carbon electrodes and its direct determination in serum and pharmaceutics by square wave and differential pulse voltammetry
B. Uslu, B. Doğan and S.A. Özkan (Ankara, Turkey) ... 307
Flow analysis of *p*-aminophenyl phosphate with a gold nanoelectrode ensemble based detector
T.-H. Hsia, K.-T. Liao and H.-J. Huang (Kaohsiung, Taiwan) ... 315
Simultaneous voltammetric determination of four carbamate pesticides with the use of chemometrics
Y. Ni, P. Qiu (Jiangxi, China) and S. Kokot (Brisbane, Australia) ... 321

Chemometrics

Comparing radial basis function and feed-forward neural networks assisted by linear discriminant or principal component analysis for simultaneous spectrophotometric quantification of mercury and copper
Y. Akhlaghi and M. Kompany-Zareh (Zanjan, Iran) 331

Improved kinetic data from analysis of complex hydrocarbon mixtures by using SIMCA
D. Kubička, M. Rönnholm (Åbo/Turku, Finland), S.-P. Reinikainen (Lappeenranta, Finland), T. Salmi and D.Yu. Murzin (Åbo/Turku, Finland) .. 339

First order Rayleigh scatter as a separate component in the decomposition of fluorescence landscapes
Å. Rinnan (Frederiksberg, Denmark), K.S. Booksh (Tempe, AZ, USA) and R. Bro (Frederiksberg, Denmark) 349

Archaeometry

Archaeometric characterisation of ancient pottery belonging to the archaeological site of Novalesa Abbey (Piedmont, Italy) by ICP–MS and spectroscopic techniques coupled to multivariate statistical tools
E. Marengo, M. Aceto, E. Robotti, M.C. Liparota, M. Bobba (Alessandria, Italy) and G. Pantò (Torino, Italy) 359

Alcoholic strength determination

Rapid determination of alcoholic strength of egg liqueur using steam distillation and oscillation-type densimetry with peristaltic pumping
D.W. Lachenmeier (Karlsruhe, Germany), P.A. Burri (Schwerzenbach, Switzerland), T. Fauser, W. Frank and S.G. Walch (Karlsruhe, Germany) 377

Infrared spectrometry

α-Cyclodextrin-modified infrared chemical sensing system that utilizes enzymatic reactions for the determination of glucose
J. Yang and S.-C. Liang (Taichung, Taiwan) 385

Analysis of soot containing exhaust gases

An ammonia and isocyanic acid measuring method for soot containing exhaust gases
O. Kröcher, M. Elsener and M. Koebel (Villigen, Switzerland) 393

Diffusive gradients in thin films

Performance of diffusive gradients in thin films for measurement of the isotopic composition of soluble Zn
D. Malinovsky (Luleå, Sweden), R. Dahlqvist (Stockholm, Sweden), D.C. Baxter, J. Ingri and I. Rodushkin (Luleå, Sweden) 401

Author Index 407

Calendar of forthcoming meetings N1

CONTENTS Direct

This journal is part of **ContentsDirect**, the ***free*** alerting service which sends tables of contents by e-mail for Elsevier books and journals. You can register for **ContentsDirect** online at: **http://contentsdirect.elsevier.com**

SCIENCE DIRECT®

Full text of this journal is available, on-line from **ScienceDirect**. Visit **www.sciencedirect.com** for more information.